

REMARKS

Claims 1-3, 5, 7 and 10-13 were rejected under 35 U.S.C. 103(a) on the grounds of obviousness from Leshem in view of Espy, and further in view of Horst et al., Hillis, Dekoning, et al., Swanson et al. and Brant et al. The Examiner indicated that Leshem teaches a controller providing a communication path between a first server and some storage devices through an associate storage device bypass circuit board, and that Horst et al. teaches a first controller providing a communication path between a first server and each storage device, and a second controller providing a communication path between the second server and each storage device, allowing the CPUs of the two systems to operate in a simplex mode in independent fashion.

The Examiner further asserted that Brant et al. teaches at least one of the servers being operative to establish direct communication between the first and second controllers, and the first and second controllers being operative to maintain direct communication between the first and second controllers independent of the at least one CPU of the first server and the at least one CPU of the second server, referring to Brant et al. at column 7, lines 20-28, relating to the first embodiment shown in Fig. 1; Fig. 4 and column 12, line 64 to column 13, line 8, relating to the third embodiment; and Fig. 8 and column 18, lines 42-52, and column 20, lines 50-63, relating to the fifth embodiment. The Examiner argued that it would have been obvious to one of ordinary skill in the art to modify the system of Leshem with the system of Brant et al., and that an artisan would have been motivated, because that would allow data to be transmitted from one controller

to another controller independent of the CPU, using the controller processor. According to MPEP 706.02(j) "the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure." It is respectfully submitted that the prior art references when combined do not teach or suggest all the claim limitations.

Claim 1 recites "a first server including a first controller and at least one CPU;" "a second server including a second controller and at least one CPU," and "at least one of said servers being operative to establish direct communication between the first and second controllers, and said first and second controllers being operative to maintain direct communication between the first and second controllers independent of said at least one CPU of said first server and said at least one CPU of said second server." The Examiner acknowledged that Leshem does not teach a first server including a first controller and at least one CPU and a second server including a second controller and at least one CPU. As was discussed in the Reply of November 14, 2005, it is clear that the communication between a first controller and a second controller in Horst et al. suggested by the Examiner is not independent of the CPUs of the first server and the second server.

Brant et al., at column 7, lines 20-28, relating to the first embodiment shown in Fig. 1, teaches a CPU 1 coupled to a single array controller 3. Brant et al., in Fig. 4 and column 12, line 64 to column 13, line 8, relating to the third embodiment, discloses a CPU 1 coupled to first and second array controllers 403 and 405. In Fig. 8 and at column 18, lines 42-52, and column 20, lines 50-63, relating to the fifth embodiment, Brant et al.

discloses a CPU 1 coupled to first and second array controllers 801, 802. It is thus clear that in Brant et al., there is no disclosure of first and second servers each including a controller and at least one CPU, wherein at least one of the servers is operative to establish direct communication between the controllers of the first and second servers, and the controllers being operative to maintain direct communication between them independent of the CPU's of the first and second servers, as is claimed.

It is respectfully submitted that none of the references cited teach, disclose or suggest, either individually or in combination, first and second servers each with at least one CPU, and at least one of the first and second servers being operative to establish direct communication between their respective first and second controllers, and said first and second controllers being operative to maintain direct communication between the first and second controllers independent of the at least one CPU of the first server and the at least one CPU of said second server, as is claimed. It is therefore respectfully submitted that Claims 1-3, 5, 7 and 10-13 are novel and inventive over Leshem, Espy, Horst et al., Hillis, Dekoning, et al., Swanson et al. and Brant et al., either individually or in combination, and that the rejection of Claims 1-3, 5, 7 and 10-13 on the grounds of obviousness from Leshem in view of Espy, and further in view of Horst et al., Hillis, Dekoning, et al., Swanson et al. and Brant et al. should be withdrawn.

Claims 6, 16, 19-21, 23, 24, 28-31 and 34 were rejected under 35 U.S.C. 103(a) on the grounds of obviousness from Leshem in view of Espy, and further in view of Horst et al., Hillis, Dekoning et al., Swanson et al., Brant et al. and Harvey. As to Claim 6, Harvey was cited as disclosing a module including a storage device bypass board

connector for each of the storage device bypass circuit boards with an opening between each connector to permit air flow between the connectors for cooling purposes to prevent overheating of the drive and related hardware. As to Claim 16, Harvey was also cited as disclosing a module including a disk drive bypass circuit board connector for each of the disk drive bypass circuit boards, with an opening between each connector to permit flow of air between the connectors and alongside the bypass circuit boards and disk drives for cooling purposes.

Claims 6 and 16 depend from Claim 1. It is respectfully submitted that Harvey does not teach, disclose or suggest first and second servers each with at least one CPU, and at least one of the first and second servers being operative to establish direct communication between their respective first and second controllers, and said first and second controllers being operative to maintain direct communication between the first and second controllers independent of the at least one CPU of the first server and the at least one CPU of said second server, as is claimed. In light of the foregoing remarks, it is respectfully submitted that Claims 6 and 16 are novel and inventive over Leshem, Espy, Horst et al., Hillis, Dekoning et al., Swanson et al., Brant et al. and Harvey, either individually or in combination.

As to Claim 19, the Examiner indicated that Brant et al. teaches at least one of the servers being operative to establish direct communication between the first and second controllers, and the first and second controllers being operative to maintain direct communication between the first and second controller independent of the at least one CPU of the first server and the at least one CPU of the second server, as discussed above.

Claim 19 recites "at least one of said first and second servers being operative to establish direct communication between the first and second controllers, and said first and second controllers being operative to maintain direct communication between the first and second controllers independent of said at least one CPU of said first server and said at least one CPU of said second server." It is respectfully submitted that none of the references cited teach, disclose or suggest, either individually or in combination, first and second servers each with at least one CPU, and at least one of the first and second servers being operative to establish direct communication between their respective first and second controllers, and said first and second controllers being operative to maintain direct communication between the first and second controllers independent of the at least one CPU of the first server and the at least one CPU of said second server, as is claimed. It is therefore further respectfully submitted that Claims 19-21, 23, 24, 28-31 and 34 are novel and inventive over the Leshem, Espy, Horst et al., Hillis, Dekoning et al., Swanson et al., Brant et al. and Harvey, either taken individually or in combination, and that the rejection of Claims 6, 16, 19-21, 23, 24, 28-31 and 34 on the grounds of obviousness from Leshem in view of Espy, and further in view of Horst et al., Hillis, Dekoning et al., Swanson et al., Brant et al. and Harvey should be withdrawn.

Claims 8, 9, 17, 18, 25-27, 35 and 36 were rejected under 35 U.S.C. 103(a) on the grounds of obviousness from Leshem in view of Espy, and further in view of Horst et al., Hillis, Dekoning et al., Swanson et al., Brant et al., Harvey and Kimura et al. Claims 8, 9, 17 and 18 depend from Claim 1, discussed above, and Claims 25-27, 35 and 36 depend from Claim 19, discussed above. Kimura et al. was cited as teaching that each drive

bypass circuit board is relatively flat. It is respectfully submitted that Kimura et al. also does not teach, disclose or suggest first and second servers each with at least one CPU, and at least one of the first and second servers being operative to establish direct communication between their respective first and second controllers, and said first and second controllers being operative to maintain direct communication between the first and second controllers independent of the at least one CPU of the first server and the at least one CPU of said second server, as is claimed. It is therefore respectfully submitted that Claims 8, 9, 17, 18, 25-27, 35 and 36 are novel and inventive over Leshem, Espy, Horst et al., Hillis, Dekoning et al., Swanson et al., Brant et al., Harvey and Kimura et al., either individually or in combination, and that the rejection of Claims 8, 9, 17, 18, 25-27, 35 and 36 on the grounds of obviousness from Leshem in view of Espy, and further in view of Horst et al., Hillis, Dekoning et al., Swanson et al., Brant et al., Harvey and Kimura et al. should be withdrawn.

In light of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance, and an early favorable action in this regard is respectfully requested.

Respectfully submitted,

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